PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Gerald Hoefer — Group Art Unit: Not Assigned

Serial No.: Not Assigned — Examiner: Not Assigned

Filed: Herewith — Docket No.: 1406/43

For: METHOD FOR TRANSFERRING DATA VIA A PLURALITY OF PARALLEL DATA TRANSMISSION LINKS

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PRELIMINARY AMENDMENT

Honorable Commissioner for Patents
BOX PCT
Washington, D.C. 20231

Dear Sir:

Kindly amend the subject application as follows:

IN THE SPECIFICATION:

Please insert the paragraph heading on page 1 of the English translation of the subject application, line 5, as follows:

--Technical Field --.

Please insert the paragraph heading on page 1 of the English translation of the subject application, line 11, as follows:

--Background Art --.

Please insert the paragraph heading on page 4 of the English translation of the subject application, line 15, as follows:

--Summary of the Invention--.

Please insert the paragraph heading on page 7 of the English translation of the subject application, line 10, as follows:

--Brief Description of the Drawings--.

Please insert the paragraph heading on page 7 of the English translation of the subject application, line 32, as follows:

--Detailed Description of the Invention--.

IN THE CLAIMS:

Please delete the paragraph heading on page 19 of the English translation of the subject application, line 1, and insert in place thereof the paragraph heading as follows:

--CLAIMS--

Please insert the paragraph heading on page 19 of the English translation of the subject application, before claim 1, the following:

-- What is claimed is: --.

Please amend claims 1-6 as follows:

1. (Amended) Method for transferring data between an analogue modem and a data communication partner, where

the data can be transferred, using a PCM modulation method, from the analogue modem with a variable sampling rate of greater than or equal to 8 kHz via an analogue data transmission line to a subscriber line unit which has a coder/decoder device with an appropriately variable sampling rate; and

where the subscriber line unit can set up at least two data transmission links (K_1, K_2, ..., K_n) to the data communication partner in parallel;

having the following steps;

the data transfer conduction properties of the data transmission line are established during connection setup;

the maximum possible number m_{max} of data symbols S_{xy} which can be transferred per data transmission link (K_1, K_2, ..., K_n) is established; and

a particular number n, required for a predetermined data transfer rate, of connected data transmission links (K_1, K_2, ..., K_n) is set up on the basis of the data transfer conduction properties and the established maximum possible number of transferrable data symbols S_{xy} per data transmission link (K_1, K_2, ..., K_n) in order to produce a higher data transfer rate than 64 kbit/s between the analogue modem and the data communication partner.

2. (Amended) Method according to Claim 1, wherein the data communication partner is in the form of a digital modem.

3. (Amended) Method according to Claim 1, wherein the subscriber line unit sets up the data transmission links (K_1, K_2, ..., K_n) required for a predetermined data transfer rate on the basis of the possible bandwidth f of the data transmission line.

4. (Amended) Method according to claim 1, wherein, for each data transmission link (K_1, K_2, ..., K_n), the amplitude values A_{xy} associated with the symbols S_{xy} to be transferred are respectively converted, with a matrix containing the amplitude values A_{xy} as matrix elements being able to be converted into a conversion table in the form of a consecutive serial listing to increase the respective maximum possible number m_{max} of data symbols S_{xy} which can be transferred per data transmission link (K_1, K_2, ..., K_n) at a predetermined transmission power of the data transmission line.

5. (Amended) Method according to claim 1, wherein the individual data transmission links (K_1, K_2, ..., K_n) can be forwarded to a data processing device associated with the analogue modem.

6. (Amended) Method according to claim 1, wherein the compensation for reception filters and clock recovery using a clock recovery device are effected directly in the analogue modem, with the clock signal for the analogue modem being able to be synchronized with the clock signal for the coder/decoder device in the subscriber line unit.

REMARKS

The amendments to the specification as set forth above are intended to clarify and set apart the various sections of the subject application.

The amendments to the claims as set forth above are intended to remove all multiple dependent claims from the subject application and to more particularly point out and distinctly claim the subject invention.

Attached hereto is a marked-up version of the specification and claims 1-6, which illustrates all of the changes made to the specification and claims pursuant to 37 CFR §1.121. The attached page is captioned "**Version With Markings To Show Changes Made**". Deleted language is bracketed and added language is underlined.

The Commissioner is hereby authorized to charge any deficiencies or credit any overpayments in connection with the filing of this correspondence to Deposit Account No. **50-0426**.

Respectfully submitted,

JENKINS & WILSON, P.A.

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Serial No.: Not yet assigned

Version With Markings To Show Changes Made

IN THE SPECIFICATION:

The paragraph heading has been inserted on page 1 of the English translation of the subject application, line 5, as follows:

Technical Field

The paragraph heading has been inserted on page 1 of the English translation of the subject application, before line 11, as follows:

Background Art

The paragraph heading has been inserted on page 4 of the English translation of the subject application, line 15, as follows:

Summary of the Invention

The paragraph heading has been inserted on page 7 of the English translation of the subject application, line 10, as follows:

Brief Description of the Drawings

The paragraph heading has been inserted on page 7 of the English translation of the subject application, before line 33, as follows:

Detailed Description of the Invention

IN THE CLAIMS:

The paragraph heading "Patent Claims" on page 19 of the English translation of the subject application has been deleted and the paragraph heading has been inserted in place thereof as follows:

CLAIMS

The paragraph heading has been inserted on page 9 of the English translation of the subject application, before claim 1, as follows:

What is claimed is:

1. (Amended) Method for transferring data between an analogue modem [(3)] and a data communication partner [(4)], where

the data can be transferred, using a PCM modulation method, from the analogue modem [(3)] with a variable sampling rate of greater than or equal to 8 kHz via an analogue data transmission line [(1)] to a subscriber line unit [(5)] which has a coder/decoder device [(50)] with an appropriately variable sampling rate; and

where the subscriber line unit [(5)] can set up at least two data transmission links (K_1, K_2, ..., K_n) to the data communication partner [(4)] in parallel;

having the following steps;

the data transfer conduction properties of the data transmission line [(1)] are established during connection setup;

the maximum possible number m_{max} of data symbols S_{xy} which can be transferred per data transmission link (K_1, K_2, ..., K_n) is established; and

a particular number n, required for a predetermined data transfer rate, of connected data transmission links (K_1, K_2, ..., K_n) is set up on the basis of the data transfer conduction properties and the established maximum possible number of transferrable data symbols S_{xy} per data transmission link (K_1, K_2, ..., K_n) in order to produce a higher data transfer rate than 64 kbit/s between the analogue modem [(3)] and the data communication partner [(4)].

2. (Amended) Method according to Claim 1, [characterized in that] wherein the data communication partner [(4)] is in the form of a digital modem [(4)].

3. (Amended) Method according to Claim 1, [characterized in that] wherein the subscriber line unit [(5)] sets up the data transmission links (K_1, K_2, ..., K_n) required for a predetermined data transfer rate on the basis of the possible bandwidth f of the data transmission line [(1)].

4. (Amended) Method according to [one of the preceding claims, characterized in that] claim 1, wherein, for each data transmission link (K_1, K_2, ..., K_n), the amplitude values A_{xy} associated with the symbols S_{xy} to be transferred are respectively converted, with a matrix [(53)] containing the amplitude values A_{xy} as matrix elements being able to be converted into a conversion table [(56)] in the form of a consecutive serial listing to increase the respective maximum possible number m_{max} of data symbols S_{xy} which can be transferred per data transmission link (K_1, K_2, ..., K_n) at a predetermined transmission power of the data transmission line [(1)].

5. (Amended) Method according to [one of the preceding claims, characterized in that] claim 1, wherein the individual data transmission links (K_1, K_2, ..., K_n) can be forwarded to a data processing device [(35)] associated with the analogue modem [(3)].

6. (Amended) Method according to [one of the preceding claims, characterized in that] claim 1, wherein the compensation for reception filters and clock recovery using a clock recovery device [(33)] are effected directly in the analogue modem [(3)], with the clock signal for the analogue modem [(3)] being able to be synchronized with the clock signal for the coder/decoder device [(50)] in the subscriber line unit [(5)].